



WASHINGTON STATE DEPARTMENT OF
Natural Resources
Doug Sutherland - Commissioner of Public Lands



Conserving Marbled Murrelet Habitat in Washington's State Forests

Enhancing marbled murrelet habitat on state trust lands

Protecting habitat for sensitive species on state trust lands is a major priority of the Washington State Department of Natural Resources (DNR). Forested state trust lands are home to several wildlife species that the federal government has listed as threatened or endangered under the Endangered Species Act. These species include the northern spotted owl (listed in 1990) and the marbled murrelet (listed in 1992).

Rather than taking an owl-by-owl or murrelet-by-murrelet approach to species protection, DNR takes a landscape approach. This approach includes an emphasis on conservation in areas next to federal landowners who also have long-term protected areas and commitments.

Habitat Conservation Plan protects species, assures management flexibility

In January 1997, DNR signed a multi-species Habitat Conservation Plan (HCP) agreement with the U.S. Fish and Wildlife Service (FWS) and NOAA Fisheries—collectively referred to as the “Services”—to meet its obligation under the Federal Endangered Species Act to conserve habitat.

The HCP guides management on 1.6 million acres of forested state trust lands, mostly in Western Washington. It allows DNR to carry out management activities, including timber harvests, while emphasizing wildlife conservation and ecosystem health across the landscape.

DNR has a legal duty to produce long-term income for various specific trust beneficiaries, primarily schools and counties. This contract with the federal Services added greater certainty to DNR's ability to manage trust lands for the greatest possible sustainable long-term revenue for the trust beneficiaries while also protecting listed species.

When the HCP was signed, managers did not have sufficient information about marbled murrelet ecology to create a credible long-term conservation strategy. In the absence of such information, DNR and the Services built into the HCP agreement a provision for an interim strategy for the conservation of the marbled murrelet to be implemented while a long-term strategy was being developed.

Developing a long-term conservation strategy

The interim marbled murrelet conservation strategy described in the HCP outlined a step-by-step approach to focus research efforts and conservation measures.

Contact

Andrew Hayes
HCP Implementation Manager
Land Management Division
1111 Washington St. SE
PO Box 47016
Olympia, WA 98504-7016
phone 360-902-1347
fax 360-902-1789
andrew.hayes@wadnr.gov

More →

DNR took steps to:

- 1) Defer harvest of timber stands that meet interim structural definitions of habitat.
- 2) Develop predictive models—for each of six large, watershed-based planning units—that help predict the probabilities about which DNR-managed forest stands would be occupied by murrelets.
- 3) Use the predictive computer model to help identify marginal habitat types expected to contain a maximum of 5 percent of that habitat found in occupied sites, and release those areas for other management activities. (No known occupied sites were released; they all were protected.)
- 4) Simultaneous with the release of marginal habitat, conduct a complete inventory survey to locate occupied sites in all of the stands predicted to contain habitat types found in 95 percent of the occupied sites. Certain unoccupied habitats would become available for other management activities.
- 5) Develop and implement a long-term conservation strategy for each HCP planning unit.

DNR has substantially completed the first four steps of the interim strategy for four of the six Western Washington HCP planning units (Straits, Olympic Experimental State Forest, South Coast and Columbia units). DNR now is beginning Step 5 in developing the long-term conservation strategy.

In the remaining two planning units (North Puget and South Puget), DNR is continuing to complete Steps 1 through 4 of the interim strategy. Now DNR and the US Fish and Wildlife Service (FWS) also are considering the development of a long-term conservation strategy (Step 5) and its relationship to the strategy for the other four planning units.

Life history of the marbled murrelet

The marbled murrelet (*Brachyramphus marmoratus*) is a small, dove-sized seabird that nests in coastal conifer forests along the Pacific Coast of North America. These extremely secretive birds spend most of their lives at sea, in small groups or pairs, on calm, protected coastal waters just beyond the breakers. They forage in near-shore waters using wing propulsion to ‘fly,’ chasing prey underwater to depths of 160 feet.

Until 1974, little was known about the birds’ nesting habits. Today, it is known that they nest as

far as 50 miles inland in mature coniferous forests, usually 120 to 150 feet above ground. Because the nest itself is just a shallow depression in lichens or moss on a tree limb, they rely on tall, old trees with large limbs and a complex canopy to conceal their eggs.

Marbled murrelet populations range along the Pacific Coast from the Aleutian Islands in Alaska to central California. Historically, they inhabited the entire Washington Coast and the Puget Sound region. From at-sea surveys, population estimates currently place the number of murrelets at around 9,800 birds in Washington. Major gaps in the at-sea distribution of murrelets in Washington occur in southern Puget Sound and the southwestern coast (north of the Columbia River and off of Grays Harbor and Willapa Bay).

The marbled murrelet populations of Washington, Oregon, and California were federally listed as threatened in 1992. The listing decision was based on threats to the murrelet that included loss of nesting habitat due to timber harvest and mortality due to gill-net fishing and oil spills at sea. The US Fish and Wildlife Service estimates that marbled murrelet numbers are declining at a rate of about 4 to 7 percent per year. FWS believes that the following phenomena are leading to this observed decline of the marbled murrelet:

- 1) Timber harvest has reduced the amount of nesting habitat in older forests, thus decreasing the proportion of the population that is able to find nest sites.
- 2) Nests in old forests fragmented by logging are increasingly subject to edge effects, especially predation, which reduces their nesting success rate.
- 3) The diminished availability of prime nesting habitat forces murrelets to nest in lower-quality habitat.
- 4) Nesting murrelets pack into the diminished amounts of habitat at higher densities, thus encouraging area-restricted searching by predators, further reducing nest success.

Interdisciplinary science team develops biological criteria for long-term conservation strategy

In 2004, university and federal researchers and scientists, professional consultants, DNR staff researchers, and representatives from US Fish and Wildlife Service and Washington Department of Fish

More →

and Wildlife began work on developing the scientific foundation for the marbled murrelet long-term conservation strategy.

This team is taking a deliberate analytical approach that will result in scientifically credible, comprehensive and forward-thinking recommendations for a conservation strategy. At the core of this approach will be basic biological criteria developed by the science team for the long-term conservation strategy.

The strategy must include land management practices that allow Western Washington forested state trust lands to contribute to murrelet populations that are (1) stable or increasing, (2) well-distributed, and (3) resilient. These criteria will be used as the dominant biological drivers for management of DNR lands for conservation of the marbled murrelet.



Environmental review of proposed marbled murrelet amendment to the HCP

The US Fish and Wildlife Service will evaluate whether the proposed amendment to the HCP—a long-term conservation strategy for marbled murrelets—will cause significant environmental impacts under the National Environmental Policy Act (NEPA).

The Washington State Environmental Policy Act (SEPA) requires environmental review when a state agency undertakes an action. An agency action includes any plans, policies, or rules that will set the direction of future on-the-ground environmental actions, such as timber harvest. DNR has identified some potential negative effects that might significantly impact the environment with implementation of a long-term marbled murrelet conservation strategy. Therefore, DNR will consider alternative management proposals for the murrelet in the Environmental Impact Statement (EIS) conducted under SEPA. An alternative must substantively meet the following criteria:

- Biological contributions to marbled murrelet populations that are stable or increasing; well-distributed, and resilient;

- 1997 DNR Habitat Conservation Plan conservation objectives and all the responsibilities defined in that agreement;
- DNR's fiduciary responsibility as defined by law; and
- All DNR policies, state and federal laws.

Within the EIS, DNR will examine a range of alternatives. Environmental impacts associated with land management activities will not be assessed for any specific site. Instead, general impacts associated with the marbled murrelet long-term conservation strategy applied to the greater DNR-managed landscape will be assessed. DNR will examine likely environmental impacts at appropriate spatial scales (e.g., HCP planning unit, landscape, or Watershed Administrative Unit) of the proposed long-term conservation strategy.

Because both the US Fish and Wildlife Service and DNR believe that a detailed EIS is needed to identify likely significant impacts and their mitigation, DNR has asked that environmental review under both NEPA and SEPA be considered together.

Timeline and opportunities for public input

There will be many opportunities for other agencies, tribes and the public to offer input through the NEPA/SEPA process. In the EIS, DNR will consider probable, significant adverse environmental impacts resulting from the proposed action. The purpose of 'Scoping' under NEPA/SEPA is to listen to ideas and suggestions from scientists, agencies and the public regarding what should be considered in the environmental review and analysis.

Public scoping is occurring in fall of 2006. Meetings are held throughout Western Washington to inform the public of DNR's proposed action to develop a long-term murrelet strategy, and to take comments. Written comments are accepted throughout the scoping period. DNR and FWS also will solicit comments after publication of the Draft EIS, proposed for release in spring 2007. The US Fish and Wildlife Service also will take comments between the release of the Final EIS and the publication of the Record of Decision (both in 2008).

DNR will answer questions and address concerns throughout this entire process, and encourages interested parties to contact the department.